Request for Continued Examination/Preliminary Amendment

Final Rejection dated 02/03/2010

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A process for preparing boehmitic aluminas by hydrolysis of aluminium alcoholates in aqueous, alkaline solution forming a mixture, followed by hydrothermal aging, characterised in that

(A) the hydrolysis is carried out at pH values above 9.5 at a temperature of from 50° to 95°C and

the hydrolysis and/or the hydrothermal aging of the mixture resulting from the hydrolysis is carried out in the presence of 0.1 to 0.5 wt.% of carboxylic acids having at least one additional substituent, the salts thereof or their derivatives which during hydrolysis and/or the hydrothermal aging are at least partially converted into the free carboxylic acid or the dissociated form thereof, wherein said at least one additional substituent is selected from the group consisting of hydroxy-, oxo- and amino groups; and

- (B) the boehmitic aluminas prepared in step (A) are subjected to an aging step at 120°C to 250°C for at least 1 hour to provide a boehmetric alumina having an alpha-conversion temperature of 1350°C and higher.
- 2. (Previously Presented) The process according to claim 1, characterised in that the substituted carboxylic acid, their derivatives or the salt thereof is added in

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quantities of 0.2 to 0.4 wt.%, referring to the total mass of the premix composition and calculated as substituted carboxylic acid.

3. (Previously Presented) The process according to any one of claims 1 or 2, characterised in that the substituted carboxylic acid, their derivatives or salt thereof are selected from the group consisting hydroxycarboxylic acids, hydroxydicarboxylic acids, hydroxydicarboxylic acids, dihydroxydicarboxylic acids, oxocarboxylic acids, amino acids and mixtures thereof.

4. (Previously Presented) The process according to any one of claims 1 or 2, characterised in that the hydrolysis is carried out at a temperature of from 60 to 95°C.

5. (Cancelled)

- 6. (Previously Presented) The process according to any one of claims 1 or 2, characterised in that the aging step in (B) is carried out at temperatures ranging from 130°C to 220°C, preferably 205°C to 215°C for at least 1 hour, preferably at least 2 hours.
- 7. (Previously Presented) The process according to claim 6, characterised in that the aging step in step (B) is carried out in an aqueous environment with a solid matter concentration (calculated as Al₂O₃) at the beginning of the aging step

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ranging from 2 to 17 wt.%, preferably 5 to 10 wt.%, referring to the total mass of composition subjected to aging.

- 8. (Previously Presented) Boehmitic aluminas manufactured by the process according to any one of claims 1 or 2, and which convert to the α -phase only at temperatures of above 1350°C.
- 9. (Original) The boehmitic aluminas according to claim 8, characterised in that the aluminas have a lamellar (plate type) or needle shaped (acicular) crystal structure, preferably an acicular one, depending on the carboxylic acid used.
- 10. (Previously Presented) The boehmitic aluminas according to claim 8 or the alumina prepared therefrom by calcination, characterised in that before and after calcination the boehmitic aluminas or the alumina are dispersible even at neutral pH values in aqueous or organic media, particularly C₁- to C₃-alcohols, in quantities above 1 wt.%, preferably above 7 wt.%, most preferably above 10 wt.%, calculated as Al₂O₃ and referring to the total composition.
- 11. (Previously Presented) An alumina prepared according to any one of claims 1 or 2 followed by calcination, characterised in that the alumina when treated with temperatures of above 1200°C remains to have a pore volume of above 0.5 ml/g, based on pore radii from 2 to 100 nm, and a surface area above 20 m²/g, measured in accordance with DIN 66131.

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12. (Previously Presented) An alumina prepared according to any one of claims 1 or 2 followed by calcination, characterised in that calcination is carried out at above 450°C and the alumina has a particle size ranging from 10 to 50 nm in aqueous suspension or dispersion.

13. (Cancelled)

- 14. (Currently Amended) A catalyst carrier for preparing compositions used in motor car catalytic converters comprising a boehmitic alumina according to any one of claims 1 or 2, wherein the boehmitic alumina has been calcined to provide an alumina having an alpha-conversion temperature of 1350°C and higher.
- 15. (Currently Amended) A process for preparing boehmitic aluminas by hydrolysis of aluminium alcoholates in aqueous, alkaline solution forming a mixture, optionally followed by hydrothermal aging, characterised in that
 - (A) the hydrolysis is carried out by mixing the aluminum alcoholate with an aqueous alkaline premix containing a pH adjuster to provide a hydrolysis mixture and hydrolyzing the aluminum alcoholate in the hydrolysis mixture at pH values above 9 and at a temperature of 50 to 95°C and the hydrolysis and/or the hydrothermal aging of the mixture resulting from the hydrolysis is carried out in the presence of 0.1 to 0.5 wt.% of carboxylic acids having at least one additional substituted, the salts thereof

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or their derivatives which during hydrolysis and/or the hydrothermal aging are at least partially converted into the free carboxylic acid or the dissociated form thereof, wherein said at least one additional substituent is selected from the group consisting of hydroxy-, oxo- and amino groups; and

- (B) the boehmitic aluminas prepared in step (A) are subjected to an aging step at 120°C to 250°C for at least 1 hour, to provide a boehmitic alumina having an alpha-conversion temperature of 1350°C and higher...
- 16. (Currently Amended) A process for preparing boehmitic aluminas by hydrolysis of aluminium alcoholates in aqueous, alkaline solution forming a mixture, optionally followed by hydrothermal aging, characterised in that
 - (A) the hydrolysis is carried out at pH values above 9.5 and the hydrolysis and/or the hydrothermal aging of the mixture resulting from the hydrolysis is carried out in the presence of 0.1 to 0.5 wt.% of carboxylic acids having an amino group, the salts thereof or their derivatives which during hydrolysis and/or the hydrothermal aging are at least partially converted into the free carboxylic acid or the dissociated form thereof; and
 - (B) the boehmitic aluminas prepared in step (A) are subjected to an aging step at 120°C to 250°C for at least 1 hour, to provide a boehmitic alumina having an alpha-conversion temperature of 1350°C and higher.

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17. **(Previously Presented)** The method of claim 1 wherein the hydrolysis is carried out by mixing the aluminum alcoholate with an aqueous alkaline premix containing a pH adjuster to provide a hydrolysis mixture and thereafter hydrolyzing the aluminum alcoholate in the hydrolysis mixture.